1:Redfield E-5 (1926-1927) 1930
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probably the strongest single factor operating to draw the eight villages together. The lands were thus influential in pre-Columbian times when all real property was held in common, usually not by the *pueblo* but by the subdivision of the *pueblo*, the *calpolli*.[1] Since the Reforma (1857) communal holdings have been generally reduced to individual tenure. This was probably early accomplished in Tepoztlán; private agricultural tracts are there the subject of entirely individual ownership and sale. Nevertheless the private lands are encircled by public lands in which all inhabitants of the eight villages share and which, with the *milpas*, constitute the local "fatherland."

There are thus both private and public lands in Tepoztlán. The private lands include:

1. *House sites (sitios) with their attendant agricultural plots (milpas).*—Characteristically each *sitio* has an appendant *milpa*, which may be located as much as a mile away from the *sitio;* but the two are usually taxed, and inherited together. These tracts are not infrequently sold, but most of them have been in the same family for many generations. Most of the produce supporting the community is raised on the *milpas*. There should also be mentioned the *corrales*, yards at the back of dwellings sometimes planted with corn or beans.

2. *Milpas de labor.*—These are agricultural lands reduced to private possession and tillage out of the

[1] The *calpolli* was perhaps originally a kinship unit; its limited survival in Tepoztlán will be discussed in a subsequent chapter.

1:Redfield E-5 (1926-1927)1930
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423 311 241 public lands, whether *cerriles* or *pastales*. Anyone (first obtaining permission from the municipal authorities) may till such an unoccupied piece. The inhabitants of the seven hamlets and of Tepoztlán stand on equal footing with regard to this privilege. Once the tract is reduced to possession trespass or theft is punished. The right to cultivate tracts such as these is probably sometimes sold, but no permanent title ever vests, because if the occupant fails to cultivate his tract, the municipality may reassign the tract. It is, therefore, perhaps strictly incorrect to include these lands among private holdings. But the cultivator speaks of the land as his, and, as has been said, he may even sell what right he has.

3. *Tlacololli*.—What has been said with regard to the *milpas de labor* as to tenure and cultivation applies equally to *tlacololli*. They differ only in that the former often embrace considerable areas, and are like separate farms (*ranchitas*), and they may be cultivated year after year; while the latter are small tracts of cleared land on steep mountain sides (they are taken out of the public *cerriles*). As the soil, once cleared, quickly washes away, they may be tilled no more than one or a few seasons.[1]

423 311 The public lands are those wide tracts of land unsuitable for agriculture which surround the private *milpas*. They are of two sorts: pasture lands on arid slopes (*pastales*) and wooded mountain sides (*cerriles*). They represent, historically, that part of the com-

[1] "I will open for you a *tlaculol*," sings the lover to his lady in a local ballad.

1: Redfield E-5 (1926-1927) 1930
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munal lands of the Indian *pueblo*, the *altepetlalli*, which has not been converted to private holdings, and they equally represent the communal pastures and wood lots of the medieval Spanish village.[1] Together, *pastales* and *cerriles* constitute the *ejido* of the present *pueblo*. Anyone from Tepoztlán or the seven hamlets may pasture cattle or cut wood in these lands.[2] These common lands are a source of frequent discussion and dispute; regulations are made for their protection and administration and often they are the subject of quarrels with neighboring landholding units. For many years Tepoztlán (the entire municipality) has disputed with the *hacienda* of Oacalco the ownership to certain marginal lands, and the fact that the *hacienda* is now not in private hands but in the hands of the state has not abated the quarrel.

Such a dispute, of the entire valley community with another landholding organization, serves to enhance the local *esprit de corps*. But it must be said that land disputes may operate to set one village against another as well as to draw them all together. It is probable that not infrequently one village comes to claim a special right in some particular part of the *ejido*. In 1927 a dispute developed with regard to certain mountain lands in which the inhabitants of Santa Catarina were cutting wood for charcoal without first

[1] McBride, *Land Systems of Mexico*, p. 114.

[2] These public lands, it will be observed, are exploited by individuals for private profit. The only lands in Tepoztlán which are both communally owned and communally operated for communal profit are the lands belonging to the local chapels; these will be explained in a later chapter.

2:Lewis E-5 (1943-1948)1951 NU37 Tepoztlan NU37

texcal, an area covered with volcanic rock and a thorny scrub forest with a predominating flora of copal gum, mimosalike legumes, a tree "sweet potato," and silk cotton trees.[8] *Texcal* covers a strip of land approximately two kilometers wide on the eastern limits of the municipio and constitutes about ten per cent of the total land area of the municipio. To the east of the divide is an area of rounded hills covered with scrub forest. These lands are known as *terrenos cerriles*. The predominating flora is *vera blanca*, *agualisca*, and scrub oak. Both the hill land and the land of the divide itself are used for grazing and for the planting of corn by the primitive cutting and burning method; and the trees from the cleared land are used for firewood. The villages of Santiago and Ixcatepec are located in the lower levels of this area, and the villages of Amatlán and Santo Domingo are found in pockets in the mountain chain which forms the eastern boundary of the municipio.

In viewing the land resources and types of land use in the municipio as a whole, we find there are five distinct types according to Tepoztecan categories: monte, *texcal*, *cerros*, *terrenos cerriles*, and *terrenos de temporal*. Each of these land types, with the exception of the *cerros*, plays an important role in the Tepoztecan economy. Their distribution is shown in Fig. 4. The approximate area of each of these land types and their uses are shown in Table 1.

TABLE 1. Tepoztecan Land Types and Land Uses

Land Types	Land Uses	Percentage of Total Land Area of Municipio
Monte	Lumber, firewood, charcoal	45
Texcal	*Tlacolol* (hoe culture), firewood	10
Terrenos cerriles	Grazing, *tlacolol*, firewood	18
Cerros	Some grazing and *tlacolol* but mostly of no use	12
Terrenos de temporal	Plow agriculture	15
Total		100

The foregoing data are based on a survey made by the writer with the aid of Tepoztecan informants. A survey of the land resources of the municipio made by the Departamento Agrario in 1937 agrees quite closely with our own study (see Table 2), except that the categories used in classifying the lands are not those used by Tepoztecans.

It can be seen from Table 1 that the forest lands and grazing lands together account for the largest portion of the lands of the municipio, approximately sixty-three per cent. The agricultural poverty of the municipio as well as of the village of Tepoztlán can be seen from the fact that only about fifteen per cent of the total land area is available for plow agriculture. Furthermore, most of the cultivable land is highly eroded and of poor productive quality. Tepoztecans distinguish three

[8] The flora of the *texcal* consists primarily of *huaje blanco—Leucaena* (Leguminosae); *copal—Elaphrium* (Burseraceae); *Cazahuate—Ipomoea* (Convolvulaceae); and *palo mulato—Elaphrium* (Burseraceae).

2:Lewis E-5 (1943-1948) 1951 NU37 Tepoztlan NU37

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Fig. 4. Land-use map, municipio of Tepoztlán.

2:Lewis E-5 (1943-1948)1951 NU37 Tepoztlan NU37

134 types of categories of cultivable land according to productivity. The distribution of these land classes is shown in Fig. 5.

311 First-class land produces an average of about two *cargas* of corn on the cob for every *cuartillo* of seed planted. This is by far the best land, and it is located in the valley bottoms where seasonal streams bring down the rich fertilizing materials from the monte and forests. The soil on this land is dark brown to black. Less than five per cent of the land of plow agriculture is of this type. Second-class land produces on the average of one *carga* of corn on the cob for every *cuartillo* of seed planted. This land slopes more and is more eroded; it accounts for about forty-five per cent of the cultivable land.[4] The soils are sandier and vary from light brown to reddish. Third-class lands produce on the average of about one-half a *carga* of corn on the cob for every *cuartillo* of seed planted, and account for another forty-five per cent of the cultivable land. These lands have the steepest slope and are the most [172] eroded. It is on these lands that rock terraces, said to be of pre-Conquest times, are used to prevent the complete washing away of the soils. The soil on this land is yellowish and very stony. Frequently the rock-bottom *tepetate* is only a few inches from the surface. (See Fig. 6.)

TABLE 2. Land types and areas according to agrarian Census of 1937.

Land Types	Areas (in Hectares)	Percentage of Total Land Area of Municipio
Monte Alto	11,400	44.0
Monte Bajo	5,750	22.0
En cerril accidental inútil para la agricultura	3,010	11.0
Terrenos de temporal de primero	675	3.0
Terrenos de temporal de segundo y tercero	5,075	19.1
Total	25,910	

361 631 From the foregoing materials we can see that the municipio of Tepoztlán is not a single natural or geographic unit.[5] Hills and mountains break it up and form barriers between the villages. Thus Tepoztlán is separated from the village of San Juan to the north by one group of hills and from San Andrés to the southwest by another. Santo Domingo, to the southeast of Tepoztlán, is nestled high up in a pocket in the mountain wall and is more or less isolated from all the other villages of the municipio. Only three of the villages, Ixcatepec, Santiago, and Tepoztlán 312 proper, are located within a single valley and drained by the same stream. The re-

[4] Although there is some evidence in early sixteenth-century documents examined by the writer which points to a greater productivity of the land at that time, it is interesting to note that the description of the lands of the municipio in the first land title of 1548 describes the lands as rocky, sterile, and ill suited for agriculture. Furthermore, the greater portion of the lands was described as "sitios de ganado menor" and "sitios de ganado mayor" which may indicate that the Spaniards viewed the land resources of Tepoztlán as best suited for grazing.

[5] Redfield's references to the municipio as "a natural community" and as a "valley community" tend to give the municipio a geographic unity which it does not in fact have. Redfield, *Tepoztlán*, p. 59. [114]

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Fig. 5. Land classes, municipio of Tepoztlán.

312 maining villages must depend upon springs which in some cases are a mile distant.
631 The fact that the municipio has existed for hundreds of years as a political and social entity in the face of this lack of geographic unity raises interesting questions which will be discussed later.

THE VILLAGE

133 Centrally located within the municipio, and nestled in a broad alluvial valley
361 surrounded by hills and massive rock outcroppings of fantastic and beautiful for-

2:Lewis E-5 (1943-1948)1951 NU37 Tepoztlan NU37

City, appealed for *ejido* lands for the landless families in the village. The petition for *ejidos* asked that the lands of the neighboring Hacienda of Oacalco, which had taken Tepoztecan lands in the eighteenth and early nineteenth centuries, be restored.

After almost ten years of petitioning and investigations, the request was finally granted, and by a presidential order of November 24, 1929, Tepoztlán received in restitution 2,100 hectares of land from the Hacienda of Oacalco. Of these 2,100 hectares of land, 200 were unirrigated land cultivable only during the rainy season, 500 were forest lands, and 1,400 were scrub forest lands suitable for mixed grazing.[4] This meant that there were only 200 hectares of cultivable land available for distribution in individual *ejido* plots. In addition to these lands, there have recently been other so-called *ejido* grants. In 1937 and again in 1940, the Departamento Agrario created *ejidos* out of portions of the communal lands and allotted these lands to individual Tepoztecan families.

The working out of the Agrarian Reform Laws and of the *ejido* program in Tepoztlán has not been without difficulties. It has led to a conflict between municipal and *ejido* authorities. In the past the communal lands were under the jurisdiction of the local municipal authorities. However, the presidential order of November 24, 1929, gave Tepoztlán the lands it had lost and included a clause which stipulated that in the future the communal lands, as well as the lands granted to the municipio as *ejidos*, were to be under the jurisdiction and administration of *ejido* authorities.

This order violated an old and well-established tradition which had received legal expression in the laws of the state of Morelos, whereby control of all communal lands was vested in the municipal government. Shortly after the presidential decree was passed, conflicts between the newly created *ejido* authorities and the municipal authorities broke out. The municipal authorities insisted in their right to control the communal lands, and when the *ejidatarios* refused to recognize this authority, they were jailed. The sending of federal troops to the village was threatened, to straighten out the confusion. Legally and technically the point of view of the Departamento Agrario won out, thereby weakening local authority.

One of the results of the change in authority is that the very scanty income of the municipio has been further reduced. It may be noted that this trend from local to national authority over communal lands began in 1926, when the Forestry Department took over responsibility for controlling and preserving the forest resources of the nation. Since that date, Tepoztecans who want to cut or burn wood for charcoal must, in theory, obtain the permission of the forestry authorities and pay the tax set by them. However, as we shall see later, in practice there are many violations; and at the time of this writing there is a flagrant disregard of any authority whatsoever in the making of charcoal.

Another conflict resulting from the *ejido* program in Tepoztlán is that between the *tlacololeros*, who have traditionally depended upon the communal lands for hillside agriculture, and the newly created *ejidatarios*. These two have come to be

[4] Most Tepoztecans think of this land as part of the communal holdings; only the arable portion is called *ejido*.

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423 separate interest groups, with the *ejidatarios* taking over, for private use, lands
665 which have traditionally been worked by *tlacololeros*. The latter viewed with alarm
578 this encroachment by the *ejido* authorities and formed an organization to defend their interests. This group is known as *comuneros*, in distinction to the *ejidatarios*, and has received official recognition as such by the Departamento Agrario. Each of these groups has become a political faction of weight in the village.

423 In theory any individual from any one of the eight villages of the municipio has
311 the right to use the communal lands anywhere in the municipio, provided he ob-
621 tains the permission of the municipal authorities, or, as at the present time, the
628 forestry and *ejido* authorities. But in practice each of the eight villages has come to consider certain lands, generally those nearest the village, as its own. Thus, moral boundaries have developed and are today recognized by all concerned. For example, the people of the little village of Santo Domingo jealously guard "their monte" from use by other villagers, but especially from the inhabitants of San Juan, who depend heavily upon woodcutting to earn a living. Similarly, although all *texcal* lands are technically communal property, the villagers of Gabriel Mariaca have prevented Tepoztecans from opening *tlacolol* in "their *texcal*."

[631] In recent years, conflicts over the use of communal lands have set village against village within the municipio and have seriously weakened municipal bonds. The increasing exploitation of communal resources for commercial rather than for subsistence purposes, which was encouraged by the railroad and the highway, made for competition which did not exist before. This led to a demand of the outlying villages for sole rights of control of adjoining communal lands. In effect the vil-
[631] lages were demanding that the moral boundaries be accepted as legal boundaries, thereby interpreting the communal lands as village rather than municipio lands.

423 One of the first serious difficulties between the villages of the municipio began
631 in the early twenties when the village of San Juan—taking advantage of the prox-
628 imity of the railroad which ran through the village, and because of its very limited
578 agricultural resources—began to develop the charcoal industry on a commercial
314 scale and to export large quantities of charcoal to Mexico City. In 1926 the villagers
474 of San Juan organized a forestry cooperative to meet the requirements of the national forestry law of the same year. The authorities of Tepoztlán at once challenged the right of the inhabitants of San Juan to exploit municipal resources for the ex-
[439] clusive benefit of a single village. The people of San Juan disregarded the prohibi-
[648] tions of the local authorities and appealed their case directly to the national government. The dispute was bitter and led to some violence. It was finally settled by the intervention of federal authorities, who ruled in favor of the municipio.

In March, 1930, the village of Tepoztlán then organized another cooperative—this time in the name of the municipio and theoretically open to all, but actually controlled by Tepoztecans—and continued to produce charcoal on a large scale. Government files for the next five years are full of complaints from the surrounding villages of the municipio to the effect that the Forestry Cooperative was not truly a municipal organization, but was dominated by the village of Tepoztlán in the in-

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having an *ejido* grant occurred in the larger barrios, which have controlled the local *ejido* organization from the start of the program. Again, we find a substantial number of families who do not have an *ejido* parcel living with a family who has one.

DISTRIBUTION OF *Ejido* HOLDINGS

The distribution of *ejido* parcels by barrio, shown in Table 23, seems to have been equitable; those barrios which had the smallest percentage of landowners show the largest percentage of *ejido* grants.

TABLE 23. Distribution of *Ejido* Parcels by Families and House Sites, 1944.

Barrio	No. of Family Units	No. of House Sites	Families Holding *Ejido*		Families With Two Members Holding *Ejido*	Families Without *Ejido*	Families Without *Ejido* Living With *Ejido* Holders
			No.	Per Cent			
San Miguel	214	163	61	28.4	3	153	15
La Santísima	185	139	39	21.0	1	146	14
Santo Domingo	223	174	99	44.3	6	124	19
Santa Cruz (large)	82	67	24	29.2	..	58	5
Los Reyes	49	37	11	22.4	..	38	2
San Sebastián	42	34	15	40.4	1	27	2
Santa Cruz (small)	36	29	10	27.7	..	26	3
San Pedro	22	19	8	36.3	..	14	1
Tepoztlán	853	662	267	31.30	11	586	61

SIZE OF *Ejido* HOLDINGS

The size of *ejido* parcels is shown in Table 24. *Ejido* holdings are also small; all are less than three hectares in size. Also, the larger barrios have the greatest number of larger holdings. If we compare the average size of *ejido* holdings with the average of the entire state of Morelos, we find that Tepoztlán holdings are somewhat smaller; the average *ejido* parcel in crop land, for the state as a whole, is four hectares.

PRIVATE AND EJIDO *HOLDINGS*

In the foregoing we have discussed private landholdings and *ejido* holdings separately. But there is some overlapping, since many holders of private land also have *ejidos*. Of the 267 families holding *ejidos*, 109 families also hold private land, and the remaining 158 have only *ejidos*. The way in which private and *ejido* holdings are distributed by barrio is shown in Table 25. It will be seen that 384 families neither own private land nor hold *ejido*. This reveals the land poverty of the village, as far as plow culture is concerned. The large number of landless people and the small size of landholdings result from shortage of tillable land, rather than from concentration of land-ownership in the hands of a few individuals.

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The *ejido* program in Tepoztlán has meant that 267 families, who were formerly landless, now have some land. However, the size of landholdings is too small to support Tepoztecan peasants according to their own standards. That the *ejido* has not really solved the land problem is of course due in part to the small amount of land that could be distributed, for Tepoztlán is surrounded on three sides by municipios which have their own communal lands. The *ejido* program has also had disruptive effects in the village in that it has created two distinct interest groups, the *ejidatarios* and the *tlacololeros*. Furthermore, taking the control of the communal lands away from the local municipal authorities has eliminated a source of municipal revenue, and thereby weakened local government and initiative. At the same time, it has increased centralism and made the municipio even more dependent upon the outside.

The deforestation occurring in the municipio and the refusal of Tepoztecans to abide by the regulation of the forestry department point up an important problem of more than local scope. Much has been written about the superstitious and backward Mexican peasant who opposes progress and sticks to his ancient way of life. Too frequently the specific reasons which lead to resistance to change are not sufficiently understood.

The case of Tepoztlán is typical. The livelihood of hundreds of Tepoztecan families depends upon hillside hoe culture and charcoal burning, two activities which by their very nature destroy forest resources and bring about soil erosion. Many Tepoztecans are aware that the forest resources are their greatest wealth and that failure to conserve them may lead to eventual ruin. But they are caught on the horns of the dilemma of a rapidly rising population and limited natural resources. It is no less than absurd to expect peasants to abide by rules which would deprive them of their food supply. In the light of the Tepoztecan material, it would seem essential that national programs of forest and soil conservation be carefully synchronized with other programs which will give the people alternative sources of income, if they are to give up hillside hoe culture and charcoal burning.

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243 433 pasture. For this reason, many farmers hire several peons at this time, involving an outlay of cash. At least one peon is often hired during the plowing and seeding and the first cultivation. Farmers not owning oxen and plows must rent them.

The cost of production does not always have relation to the amount of corn produced, because some fields require more work than others. In the specific cases given in Table 33 the larger production was offset by higher costs (about 32 pesos per *carga* in Plot I) and conversely, the plot which required least outlay in cash or labor yielded the least corn (about 24 pesos per *carga* in Plots II and III). Differences [435] in cash value of the corn produced are due to the changes in market price. Those who are forced to sell immediately after the harvest receive lower prices than those who hold on.

HOE CULTURE

241 311 The land used for *tlacolol* (hoe culture) is of two distinct types, located in different areas of the municipio. One type is known as *texcal*, which is covered with black volcanic rock and a semi-deciduous scrub forest in which the leaves fall and rot during the dry season and make a rich but thin topsoil in little pockets among the rocks. The other type of land is known as *cerros*, and refers to the mountainsides. Most of the *cerros* used for *tlacolol* are of lime rockbeds with many rock outcroppings and scrub forests, but of a somewhat different nature than in the *texcal*. Both types of land are at some distance from Tepoztlán, so that the farmers [484] who work this land must spend approximately two hours each way in going and returning from work.

241 423 The use of the communal lands for *tlacolol* is a fairly recent phenomenon in spite of the fact that Tepoztlán has had its communal lands since pre-Conquest times. Before the Revolution of 1910-20 during the Díaz regime, the well-to-do [661] *caciques* who controlled the political life of the municipio forcibly prohibited the [631] use of the communal lands for *tlacolol*. As we have indicated earlier, their primary motive was to assure themselves of a labor supply for their own lands. One of the [669] principal changes in the economic life of the village brought about by the Revolu- [642] tion was to deprive the *caciques* of their power and to return to the people the right to use their communal lands. But in the years immediately following the Revolution, that is between 1920 and 1927, relatively few individuals became *tlacololeros*. The population of the village was still small and there was a relative abundance of rentable land because of the absence of many families from the village.

241 423 648 In 1927 the municipio lost control of the *tlacolol* lands, which passed to the jurisdiction of the forestry department. At this time Tepoztecans lost their right to work *tlacolol* because the forestry department, as part of its national program of conservation and prevention of soil erosion, forbade the indiscriminate cutting [654] and burning of trees—an integral part of the process of preparing *tlacolol* land [185] for cultivation. With the rapid increase of population in the thirties, the shortage of land became acute and the need for the *tlacolol* land urgent. Many individuals began to open *tlacolol* plots illegally and were fined.